PhD in INGEGNERIA GESTIONALE / MANAGEMENT ENGINEERING - 40th cycle

THEMATIC Research Field: THE ROLE OF ARTIFICIAL INTELLIGENCE IN LEADING INNOVATIONS AIMED AT FACING GRAND CHALLENGES

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<th>Monthly net income of PhD scholarship (max 36 months)</th>
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<td>€ 1500.0</td>
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In case of a change of the welfare rates during the three-year period, the amount could be modified.

Context of the research activity

Motivation and objectives of the research in this field

The ongoing discourse surrounding Grand Challenges (e.g., climate change, poverty, inequality) has increasingly taken center stage in the realm of innovation management studies. Of particular interest is their profound influence on the design, delivery, and user experience of new products and services. From a technological standpoint, the recent surge in Artificial Intelligence (AI) tools like ChatGPT, Dall-E, and Midjourney has significantly impacted and empowered organizations, employees, and users in co-creating value.

While AI's potential has been explored in relation to standardized and procedural tasks, its role and capacity to collaborate with humans in enhancing product and service innovation within the context of Grand Challenges necessitate further investigation. This exploration entails a holistic understanding of product and service value creation within a broader interdisciplinary framework focusing on the socio-cultural and technological contexts of innovation.

Institutional theories offer valuable insights by addressing the underlying value logics ingrained in prevailing ideologies, which have contributed to the exacerbation of Grand Challenges and the widespread adoption of AI tools. These theories provide a lens through which to decipher the complexity of this relationship and foster the emergence of new paradigms and innovative strategies.
## Methods and techniques that will be developed and used to carry out the research

The research methodologies employed in this project will leverage the synergy between management and design approaches. While methodologies like Case Study Research, Survey Research, and Field Research will facilitate a structured examination of the opportunities and challenges presented by Artificial Intelligence in addressing Grand Challenges, other approaches such as Applied Ethnography, Co-Design Workshops, and Experiments will delve deeply into the dynamics of interaction between AI-driven tools and humans.

This research project aligns closely with the objectives of the HumanTech project, as it seeks to probe the intricate relationship between individuals and artificial intelligence. Specifically, it aims to explore collaborative frameworks that can effectively harness human perspectives and capabilities in conjunction with AI advancements.

## Educational objectives

The main educational objectives of the research project are the following:

- Developing a set of capabilities that enable to envision service innovations that are more meaningful to people;
- Developing a set of capabilities that enable to fully exploit the opportunities provided by AI in managing service innovation within the context of Grand Challenges;
- Developing research skills in the domain of innovation management and organizational transformation. As a result, the PhD candidate will be equipped to contribute in framing ambiguous and ill-defined challenges that frequently connote service innovation;
- Developing research methodology skills in the area of empirical qualitative methods, behavioral research and data analytics. By acquiring these skills, the PhD candidate will be able to conduct rigorous and insightful studies that can inform service innovation.

## Job opportunities

The opportunities for a PhD graduate in this research area
are:

• Researchers/lecturers at higher education institutions;
• Innovation Manager in Strategic Consultancy Companies;
• Innovation Manager in Creative-intensive Companies;
• Product, Business Developer and Brand Manager;

### Composition of the research group
- 2 Full Professors
- 1 Associated Professors
- 3 Assistant Professors
- 5 PhD Students

### Name of the research directors
Emilio Bellini; Tommaso Buganza; Claudio Dell’Era

### Contacts
emilio.bellini@polimi.it; tommaso.buganza@polimi.it; claudio.dellera@polimi.it

### Additional support - Financial aid per PhD student per year (gross amount)

| Housing - Foreign Students | -- |
| Housing - Out-of-town residents (more than 80Km out of Milano) | -- |

### Scholarship Increase for a period abroad

| Amount monthly | 750.0 € |
| By number of months | 6 |

### Additional information: educational activity, teaching assistantship, computer availability, desk availability, any other information

Educational activity, Teaching assistantship, Computer availability, Desk availability.

• Involvement in projects: "For the overall development of their capabilities, PhD candidates will work on sinergical projects to favour empiral data collection and network development for their career. Projects will give candidates the opportunity to work in group (peers and other senior professors)."

• Teaching and tutoring: "If coherent with the development of their doctoral program, the PhD candidate will have the opportunity to be involved in: teaching activities, tutoring to master students, tutoring to PhD candidates for administrative processes".
Funding for educational activities: 6.100,00 Euros for three years.